



01-24-06

Atty. Dkt. No. 035451-0132 (3645.Palm)

AF  
JFW

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant: Canova, Jr.

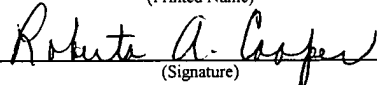
Title: HANDHELD COMPUTER WITH  
POP-UP USER INTERFACE

Appl. No.: 10/054,684

Filing Date: 1/22/2002

Examiner: Tom V. Sheng

Art Unit: 2673

<b>CERTIFICATE OF EXPRESS MAILING</b>	
I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
EV 593173061 US	01/23/06
(Express Mail Label Number)	(Date of Deposit)
Roberta A. Cooper	
(Printed Name)	
	
(Signature)	

**BRIEF ON APPEAL**

Mail Stop **APPEAL BRIEF - PATENTS**

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Under the provisions of 37 C.F.R. § 41.37, this Appeal Brief is being filed together with a credit card payment form in the amount of \$500.00 covering the 37 C.F.R. 41.20(b)(2) appeal fee. If this fee is deemed to be insufficient, authorization is hereby given to charge any deficiency (or credit any balance) to the undersigned deposit account 06-1447.

This paper is being filed in response to the final Office Action dated July 26, 2005 (finally rejecting claims 1-22). The Notice of Appeal was filed on November 22, 2005. Appellant respectfully requests favorable reconsideration of the application.

01/25/2006 HGUTEMAI 00000024 10054684

01 FC:1402

500.00 DP

**1. REAL PARTY IN INTEREST**

The real party in interest is the assignee of record, Palm, Inc. (as recorded in the records of the United States Patent and Trademark Office at Reel/Frame 012819/0145 on April 22, 2002).

**2. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences that will directly affect, be directly affected by, or have a bearing on the present appeal, that are known to Appellant or Appellant's patent representative.

**3. STATUS OF CLAIMS**

This is an appeal from the final Office Action dated July 26, 2005, finally rejecting claims 1-22. Claims 1-22 are on appeal.

**4. STATUS OF AMENDMENTS**

Claims 1-22 were pending in the application when a final Office Action dated July 26, 2005 was issued. Claim 18 was amended in the present application subsequent to the receipt of the final Office Action dated July 26, 2005. In an Advisory Action dated October 4, 2005 the Examiner indicated that the amendment to claim 18 would be entered for purposes of appeal. Accordingly, the status of the amendment to claim 18 as understood by Appellant is that the amendment to claim 18 has been entered for purposes of this appeal. No other amendments have been made subsequent to the receipt of the final Office Action dated July 26, 2005.

**5. SUMMARY OF CLAIMED SUBJECT MATTER**

Independent claim 1 is directed to a handheld computer system (100). See Specification, page 6, lines 8-19; Figs. 1, 3-9. The handheld computer system (100) includes a pressure sensitive switch (119). See Specification, page 8, line 20-26; Figs 3-9. The handheld computer

system (100) also includes a user interface (102). See Specification, page 6, lines 20-24; Fig. 1, 3-9. The handheld computer system (100) also includes a housing having a deformable side (121) (see Specification, page 10, line 17-page 11, line 2; Figs. 3-4), the housing being sized to be held in one hand (see Specification, page 11, lines 5-6), a pressure sensitive switch (119) coupled to the deformable side (121) of the housing (see Specification, page 10, lines 19-20; Figs. 3-4) such that when the housing is squeezed by the one hand, the deformable side (121) is deformed and the switch (119) is toggled (see Specification, page 10, lines 23-25, page 8, line 27-page 9, line 3; Figs. 3-4). The handheld computer system (100) also includes a display (114) supported by the housing, wherein the user interface (102) includes a text information entry area (118) (see Specification, page 6, lines 22-24), wherein the text information entry area (118) is activated in response to manipulation of the switch (119) (see Specification, page 10, lines 23-25; Figs. 3-4).

Independent claim 8 is directed to a user interface (102) for a handheld computer system (100). See Specification, page 6, lines 20-24; Fig. 1, 3-9. The handheld computer system (100) includes a display (114) and a touch pad. See Specification, page 7, lines 13-16; Figs. 1, 3-9. The user interface (102) includes means for receiving information (118) at the touch pad and the display (114), the means for receiving (118) a display in a graphical user interface to prompt a user to input text information (see Specification, page 6, lines 23-24; Figs. 1, 4-9. The user interface also includes means for activating and deactivating (119) the means for receiving (118) (see Specification, page 8, line 20-26; Figs 3-9), wherein the means for receiving (118) is reduced in size or removed from the display (114) when deactivated (see Specification, page 10, lines 17-19; Figs. 3-4) and the means for activating and deactivating (119) is not located on the display (114) and is located adjacent a deformable side (121) of a housing of the handheld computer (see Specification, page 10, lines 19-22; Figs. 3-4), the housing being sized to be held in one hand (see Specification, page 11, lines 5-6), the means for activating and deactivating (119) is coupled to the deformable side of the housing (see Specification, page 10, lines 19-20; Figs. 3-4) such that when the deformable side (121) of the housing is squeezed by the one hand,

the means for activating and deactivating (119) is toggled (see Specification, page 10, lines 23-25, page 8, line 27-page 9, line 3; Figs. 3-4).

Independent claim 18 is directed to a method of interfacing with a handheld computer system (100). See Specification, page 9, line 20-page 10, line 8; Fig. 2. The handheld computer system (100) includes a display (114) and a touch pad. See Specification, page 7, lines 13-16; Figs. 1, 3-9. The method includes activating (202) a user interface device (102, 119) to cause a suitable area for receiving handwritten characters (118) to be displayed (204) on the display (114) above or behind the touch pad while the user interface device (102, 119) is being activated by the user (see Specification, page 9, line 21-page 10, line 2; Figs. 2-4), activation of the user interface device being caused by applying and maintaining hand pressure on a deformable side (121) of a housing of the handheld computer (100) (see Specification, page 11, lines 3-5), wherein the deformable side (121) is opposite a non-deformable side of the handheld computer (see Specification, page 10, lines 19-20; Fig. 3). The method also includes providing information entry (206) on the touch pad. See Specification, page 10, lines 4-5; Fig. 2. The method also includes removing (210) the suitable area (118) from the display (114) when the user interface device (102, 119) is deactivated (see Specification, page 10, lines 5-6; Fig. 2) wherein the user interface device is not located on the display (114) (see Specification, page 10, lines 21-22; Fig. 3) and deactivation of the user interface device is caused by releasing pressure (208) from the deformable side (121) which is coupled to a switch (119) (see Specification, page 10, lines 4-6 and lines 19-20, page 11, lines 3-10, Figs. 2, 3).

## 6. GROUND S OF REJECTION TO BE REVIEWED ON APPEAL

The issue on appeal is whether claims 1-22 may properly be rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,881,169 (“Henry, Jr.”) in view of U.S. Patent No. 5,006,836 (“Cooper”).

## 7. ARGUMENT

### I. LEGAL STANDARDS

All claim rejections at issue in this appeal are made under 35 U.S.C. § 103(a)<sup>1</sup>. The legal standards under 35 U.S.C. § 103(a) are well-settled.

Obviousness under 35 U.S.C. § 103(a) is a legal conclusion involving four factual inquiries:

- (1) the scope and content of the prior art;
- (2) the differences between the claims and the prior art;
- (3) the level of ordinary skill in the pertinent art; and
- (4) secondary considerations, if any, of non-obviousness.

Litton Systems, Inc. v. Honeywell, Inc., 87 F. 3d 1559, 1567, 39 U.S.P.Q. 2d 1321, 1325 (Fed. Cir. 1996). See also Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966).

In proceedings before the Patent and Trademark Office (PTO), the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984). A prima facie case of obviousness requires that the prior art reference or references teaches or suggests all of the claimed limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). “The Examiner can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992); In

---

<sup>1</sup> “A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.” 35 U.S.C. §103(a).

re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988); In re Lalu, 747 F.2d 703,705, 223 U.S.P.Q. 1257, 1258 (Fed. Cir. 1984); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297 n.24, 227 U.S.P.Q. 657, 667 n.24 (Fed. Cir. 1985); ACS Hospital Systems, Inc. v. Montefiore Hospital, 782 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983). It is improper to combine references where the references teach away from their combination. See In re Grasselli, 713 F.2d 731, 743, 218 U.S.P.Q. 769, 779 (Fed. Cir. 1983). When a reference teaches away from the claimed invention, that teaching is strong evidence of non-obviousness. See U.S. v. Adams, 383 U.S. 39, 148 U.S.P.Q. 79 (1966); In re Royka, 490 F. 2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If the proposed combination of the references would change the principle of operation of the reference being modified, the teachings of the references are not sufficient to render the claims prima facie obvious. See In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). If proposed modification would render the prior art unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. See In re Gordon, 733 F.2d 900, 221 U.S.P.Q. 1125 (Fed. Cir. 1984). Proceeding contrary to accepted wisdom is evidence of non-obviousness. See In re Hedges, 783 F.2d 1038, 228 U.S.P.Q. 685 (Fed. Cir. 1986).

As noted by the Federal Circuit, the “factual inquiry whether to combine references must be thorough and searching.” McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 60 USPQ.2d 1001 (Fed. Cir. 2001). Further, it “must be based on objective evidence of record.” In re Lee, 277 F.3d 1338, 61 USPQ.2d 1430 (Fed. Cir. 2002). The teaching or suggestion to make the claimed combination must be found in the prior art, and not in the applicant’s disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ.2d 1438 (Fed. Cir. 1991). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ.2d 1430 (Fed. Cir. 1990). “It is improper, in determining whether a person of ordinary skill would have been

led to this combination of references, simply to '[use] that which the inventor taught against its teacher.'" Lee (citing W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983)).

## **II. REJECTION OF CLAIMS 1-22 UNDER 35 U.S.C. § 103(a) BASED ON HENRY, JR. IN VIEW OF COOPER**

In the final Office Action dated July 26, 2005, the Examiner rejected claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over Henry, Jr. in view of Cooper.

Claim 1 is in independent form and claims 2-7 depends from claim 1.

Claim 8 is in independent form and claims 9-17 depend from claim 8.

Claim 18 is in independent form and claims 19-22 depend from claim 18.

The Examiner's rejection of claims 1-22 under 35 U.S.C. § 103(a) based on the combination of Henry, Jr. and Cooper should be reversed because the Examiner has failed to establish a prima facie case of obviousness with regard to claims 1-22. More specifically, for at least the reasons stated below, no proper combination of Henry, Jr. and Cooper teaches or suggests the subject matter of claims 1-22.

### **A. The Examiner's Rejection of Claims 1-22 Should Be Reversed Because There Is No Suggestion to Combine the Teachings of Henry, Jr. and Cooper.**

To establish a prima facie case of obviousness based on a combination of prior art references under 35 U.S.C. § 103(a), the Examiner must first show that there is a suggestion or motivation to combine the teachings of these references. To satisfy this burden, the Examiner must show some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992). When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the Examiner to explain

why the combination of the teachings is proper. Ex parte Skinner, 2 U.S.P.Q.2d 1788 (Bd. Pat. App. & Inter. 1986). In this case, the Examiner has not shown there would have been any motivation or suggestion to combine the teachings of Henry, Jr. and Cooper.

**1. Claims 1-7**

In the final Office Action dated July 26, 2005, the Examiner acknowledged that:

Henry does not teach that the switch is a pressure sensitive switch, the housing having a deformable side, the housing being sized to be held in one hand, the pressure sensitive switch coupled to the deformable side of the housing such that when the housing is squeezed by the one hand, the deformable side is deformed and the switch is toggled.

The Examiner, however, further stated that:

One of ordinary skill in the art would recognize that Cooper's pressure operated switch 21 or 22 reads on claimed pressure operated switch, the flexible portion 30 or 31 reads on claimed deformable side, and the coupling and operation above regarding the switches 21, 22 and the portions 30, 31 read on claimed the pressure sensitive switch coupled to the deformable side of the housing such that when the housing is squeezed by the one hand, the deformable side is deformed.

The Examiner acknowledged that the "squeezing and unsqueezing" taught by Cooper "is not the same as toggling the switch each time the deformable side is deformed." To address this acknowledged deficiency in the cited combination of Henry, Jr. and Cooper, the Examiner merely cites Danielson et al. (U.S. Patent No. 5,805,474) in support of the proposition that "this is a well known variation and the switch 21 or 22 [in Cooper] could easily [be] modified to work as a toggle switch." The Examiner further stated that "one would realize that, by incorporating Cooper's flexible wall portion and corresponding pressure operated switch in Henry's invention, an intuitive and ergonomic switching function is provided for text information entry." The Examiner concluded that "it would have been obvious to one of ordinary skill in the art to



incorporate Cooper's switching setup into Henry's handheld computer, due to the intuitive and ergonomic benefits above."

No such suggestion or motivation based on "an intuitive and ergonomic switching function" exists in the cited combination of Henry, Jr. and Cooper (and the toggle switch of Danielson et al.) to modify or otherwise combine the teachings of these references to somehow arrive at the handheld computer system of claim 1, including the toggling function of the pressure sensitive switch coupled to the deformable side. For example, Cooper teaches only generally that "the signals generated by the squeezing and unsqueezing of the mouse can be used for any purpose by the computer." See Cooper, col. 2, lines 59-61. Moreover, the mouse and computer of Cooper are only taught as separate devices with the mouse being configured to independently operate when resting on a surface. See Cooper, col. 1, lines 54-56. Neither Henry, Jr. nor Cooper provides a suggestion of the desirability of integrating the "squeezing and unsqueezing" features of the disclosed mouse with the handheld computer and text input/character selection fields of Henry, Jr. to obtain intuitive or ergonomic benefits in a single device operated in the hand of a user.

Indeed, in an Advisory Action dated October 4, 2005, the Examiner implicitly acknowledges the lack of suggestion or motivation to combine Henry, Jr. and Cooper in these references themselves by merely stating that the "prior arts are from analogous areas" and that "the test for obviousness is not whether the features of one reference may be bodily incorporated into the reference to produce the claimed subject matter, but what the references would have suggested to one of ordinary skill in the art. Thus, the Examiner somehow relies on knowledge generally available to one of ordinary skill in the art would suggest the desirability of integrating the "squeezing and unsqueezing" features of the disclosed mouse with the handheld computer and text input/character selection fields of Henry, Jr. to obtain intuitive or ergonomic benefits in a single device operated in the hand of a user.

The Examiner, however, has not established that there is any sort of suggestion or motivation to combine the teachings of Henry, Jr. and Cooper based on "an intuitive and

ergonomic switching function” existing either in the cited combination of Henry, Jr. and Cooper or in knowledge generally available to one of ordinary skill in the art. The Examiner has only provided a series of statements that merely amount to an assertion that Cooper discloses features that “read on” individual elements of the subject matter of claim 1. The test for obviousness is not whether one of ordinary skill in the art would recognize that a reference would read on individual elements of a claimed combination. Such an analysis is akin to hindsight, which is impermissible.

Furthermore, the Office Action does not provide any recitation as to why one of ordinary skill in the art would be motivated to modify the switches 21 and 22 disclosed in Cooper to work as a toggle switch (such as the toggle switch taught by Danielson et al.) in combination with the handheld computer of Henry, Jr. in order to somehow arrive at the subject matter of claim 1. The Examiner states only that toggling the switch “is a well-known variation.” This statement amounts only to a general assertion that there are many types of switch variations without any recitation as to why one of ordinary skill in the art would be motivated to modify the switches 21 and 22 disclosed in Cooper to work as a toggle switch in combination with the handheld computer of Henry, Jr. in order to somehow arrive at the combination of elements of claim 1. In the absence of a recitation of a motivation to modify the switches 21 and 22 disclosed in Cooper to work as a toggle switch (such as the toggle switch taught by Danielson et al.), the rejection of claim 1 is improper.

Because the Examiner has not properly established motivation to combine the teachings of Henry, Jr. and Cooper either in the references themselves or in knowledge generally available to one of ordinary skill in the art, the Office Action fails to establish a proper case of obviousness. The alleged motivation cited by the Examiner is thus similar to reasoning which was held to be insufficient to support a motivation to combine teachings of cited references by the U.S. Court of Appeals for the Federal Circuit. In re Lee, 277 F.3d 1338, 61 USPQ.2d 1430 (Fed. Cir. 2002). Without a proper motivation to combine the teachings of Henry, Jr. and Cooper

with knowledge of one of ordinary skill in the art, it is apparent that hindsight reasoning has been used that relies on Appellant's own disclosure as a roadmap.

In fact, the rejection of claim 1 under 35 U.S.C. § 103(a) is also improper because to modify the switches disclosed in Cooper to work as a toggle switch would change the principle of operation of Cooper. As such, there would be no motivation to modify the switches disclosed in Cooper to work as a toggle switch. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983). If the proposed combination of the references would change the principle of operation of the reference being modified, the teachings of the references are not sufficient to render the claims prima facie obvious. See In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Viewed as a whole, Cooper teaches that "[u]sing the mouse with the above described program, an operator has a perception like that of moving his hand to a form shown on the screen, grasping it, moving it, and then releasing it in a new position," and that "[t]his perception makes the manipulation of the mouse control very easy to learn and remember, and gives a sense of satisfaction in performing the operation." Col. 2, lines 61-67. To modify the switches disclosed in Cooper to work as a toggle switch would change the intuitive grasp/move/release principle under which Cooper was designed to operate.

Furthermore, in providing the innovation and advantages of the handheld computer system of claim 1, including the toggling function of the pressure sensitive switch coupled to the deformable side, Appellant has proceeded against conventional wisdom. Proceeding contrary to accepted wisdom is evidence of non-obviousness. See In re Hedges, 783 F.2d 1038, 228 U.S.P.Q. 685 (Fed. Cir. 1986). Applicant's claimed combination of the toggling function of the pressure sensitive switch coupled to the deformable side with the other elements of claim 1 provides the advantage of a user interface and a handheld computer in a single device and represents a significant innovation over providing the switching features taught by either Cooper or Danielson et al. in combination with a conventional separate mouse or other interface

device separate from the computer. Contrary to conventional wisdom, Appellant has taken the handheld computer itself and integrated user interface toggle switches and a deformable side into it as opposed to putting such features on a separate user interface. This design makes the handheld computer housing part of the user interface, and is a very different concept from having the user interface as a separate device.

Therefore, it is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness because there is no suggestion or motivation to combine the teachings of Henry, Jr. and Cooper and that the rejection of claim 1 should be reversed. Furthermore, claims 2-7 depend from independent claim 1, and therefore the rejection of claims 2-7 should be reversed for at least the same reasons as discussed above with regard to claim 1. See 35 U.S.C. § 112 ¶ 4.

## **2. Claims 8-17**

In the final Office Action dated July 26, 2005, the Examiner acknowledged that:

Henry does not teach that the switch is a pressure sensitive switch, the housing having a deformable side, the housing being sized to be held in one hand, the pressure sensitive switch coupled to the deformable side of the housing such that when the housing is squeezed by the one hand, the deformable side is deformed and the switch is toggled.

The Examiner, however, further stated that:

One of ordinary skill in the art would recognize that Cooper's pressure operated switch 21 or 22 reads on claimed pressure operated switch, the flexible portion 30 or 31 reads on claimed deformable side, and the coupling and operation above regarding the switches 21, 22 and the portions 30, 31 read on claimed the pressure sensitive switch coupled to the deformable side of the housing such that when the housing is squeezed by the one hand, the deformable side is deformed.

The Examiner acknowledged that the “squeezing and unsqueezing” taught by Cooper “is not the same as toggling the switch each time the deformable side is deformed.” To address this acknowledged deficiency in the cited combination of Henry, Jr. and Cooper, the Examiner merely cites Danielson et al. (U.S. Patent No. 5,805,474) in support of the proposition that “this is a well known variation and the switch 21 or 22 [in Cooper] could easily [be] modified to work as a toggle switch.” The Examiner further stated that “one would realize that, by incorporating Cooper’s flexible wall portion and corresponding pressure operated switch in Henry’s invention, an intuitive and ergonomic switching function is provided for text information entry.” The Examiner concluded that “it would have been obvious to one of ordinary skill in the art to incorporate Cooper’s switching setup into Henry’s handheld computer, due to the intuitive and ergonomic benefits above.”

No such suggestion or motivation based on “an intuitive and ergonomic switching function” exists in the cited combination of Henry, Jr. and Cooper (and the toggle switch of Danielson et al.) to modify or otherwise combine the teachings of these references to somehow arrive at the user interface for a handheld computer system of claim 8, including the toggling function of the means for activating and deactivating coupled to the deformable side. For example, Cooper teaches only generally that “the signals generated by the squeezing and unsqueezing of the mouse can be used for any purpose by the computer.” See Cooper, col. 2, lines 59-61. Moreover, the mouse and computer of Cooper are only taught as separate devices with the mouse being configured to independently operate when resting on a surface. See Cooper, col. 1, lines 54-56. Neither Henry, Jr. nor Cooper provides a suggestion of the desirability of integrating the “squeezing and unsqueezing” features of the disclosed mouse with the handheld computer and text input/character selection fields of Henry, Jr. to obtain intuitive or ergonomic benefits in a single device operated in the hand of a user.

Indeed, in an Advisory Action dated October 4, 2005, the Examiner implicitly acknowledges the lack of suggestion or motivation to combine Henry, Jr. and Cooper in these references themselves by merely stating that the “prior arts are from analogous areas” and that

“the test for obviousness is not whether the features of one reference may be bodily incorporated into the reference to produce the claimed subject matter, but what the references would have suggested to one of ordinary skill in the art. Thus, the Examiner somehow relies on knowledge generally available to one of ordinary skill in the art would suggest the desirability of integrating the “squeezing and unsqueezing” features of the disclosed mouse with the handheld computer and text input/character selection fields of Henry, Jr. to obtain intuitive or ergonomic benefits in a single device operated in the hand of a user.

The Examiner, however, has not established that there is any sort of suggestion or motivation to combine the teachings of Henry, Jr. and Cooper based on “an intuitive and ergonomic switching function” existing either in the cited combination of Henry, Jr. and Cooper or in knowledge generally available to one of ordinary skill in the art. The Examiner has only provided a series of statements that merely amount to an assertion that Cooper discloses features that “read on” individual elements of the subject matter of claim 8. The test for obviousness is not whether one of ordinary skill in the art would recognize that a reference would read on individual elements of a claimed combination. Such an analysis is akin to hindsight, which is impermissible.

Furthermore, the Office Action does not provide any recitation as to why one of ordinary skill in the art would be motivated to modify the switches 21 and 22 disclosed in Cooper to work as a toggle switch (such as the toggle switch taught by Danielson et al.) in combination with the handheld computer of Henry, Jr. in order to somehow arrive at the subject matter of claim 8. The Examiner states only that toggling the switch “is a well-known variation.” This statement amounts only to a general assertion that there are many types of switch variations without any recitation as to why one of ordinary skill in the art would be motivated to modify the switches 21 and 22 disclosed in Cooper to work as a toggle switch in combination with the handheld computer of Henry, Jr. in order to somehow arrive at the combination of elements of claim 1. In the absence of a recitation of a motivation to modify the switches 21 and 22 disclosed in Cooper

to work as a toggle switch (such as the toggle switch taught by Danielson et al.), the rejection of claim 8 is improper.

Because the Examiner has not properly established motivation to combine the teachings of Henry, Jr. and Cooper either in the references themselves or in knowledge generally available to one of ordinary skill in the art, the Office Action fails to establish a proper case of obviousness. The alleged motivation cited by the Examiner is thus similar to reasoning which was held to be insufficient to support a motivation to combine teachings of cited references by the U.S. Court of Appeals for the Federal Circuit. In re Lee, 277 F.3d 1338, 61 USPQ.2d 1430 (Fed. Cir. 2002). Without a proper motivation to combine the teachings of Henry, Jr. and Cooper with knowledge of one of ordinary skill in the art, it is apparent that hindsight reasoning has been used that relies on Appellant's own disclosure as a roadmap.

In fact, the rejection of claim 8 under 35 U.S.C. § 103(a) is also improper because to modify the switches disclosed in Cooper to work as a toggle switch would change the principle of operation of Cooper. As such, there would be no motivation to modify the switches disclosed in Cooper to work as a toggle switch. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983). If the proposed combination of the references would change the principle of operation of the reference being modified, the teachings of the references are not sufficient to render the claims prima facie obvious. See In re Ratti, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). Viewed as a whole, Cooper teaches that "[u]sing the mouse with the above described program, an operator has a perception like that of moving his hand to a form shown on the screen, grasping it, moving it, and then releasing it in a new position," and that "[t]his perception makes the manipulation of the mouse control very easy to learn and remember, and gives a sense of satisfaction in performing the operation." Col. 2, lines 61-67. To modify the switches disclosed in Cooper to work as a toggle switch would change the intuitive grasp/move/release principle under which Cooper was designed to operate.

Furthermore, in providing the innovation and advantages of the user interface for a handheld computer system of claim 8, including the toggling function of the means for activating and deactivating coupled to the deformable side, Appellant has proceeded against conventional wisdom. Proceeding contrary to accepted wisdom is evidence of non-obviousness. See In re Hedges, 783 F.2d 1038, 228 U.S.P.Q. 685 (Fed. Cir. 1986). Applicant's claimed combination of the toggling function of the means for activating and deactivating coupled to the deformable side with the other elements of claim 1 provides the advantage of a user interface and a handheld computer in a single device and represents a significant innovation over providing the switching features taught by either Cooper or Danielson et al. in combination with a conventional separate mouse or other interface device separate from the computer. Contrary to conventional wisdom, Appellant has taken the handheld computer itself and integrated user interface toggle switches and a deformable side into it as opposed to putting such features on a separate user interface. This design makes the handheld computer housing part of the user interface, and is a very different concept from having the user interface as a separate device.

Therefore, it is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness because there is no suggestion or motivation to combine the teachings of Henry, Jr. and Cooper and that the rejection of claim 8 should be reversed. Furthermore, claims 9-17 depend from independent claim 8, and therefore the rejection of claims 9-17 should be reversed for at least the same reasons as discussed above with regard to claim 8. See 35 U.S.C. § 112 ¶ 4.

### **3. Claims 18-22**

In the final Office Action dated July 26, 2005, the Examiner stated that:

Method claims 18-22 only differ from claims 1-7 in that the claimed pressure sensitive switch is a non-toggling type. Henry as modified by Cooper reads on the non-toggling pressure sensitive switch as claimed. Moreover, Henry's activation area 411 reads on the claimed touch sensor.



As with claims 1 and 8, the Examiner has not established that there is any sort of suggestion or motivation to combine the teachings of Henry, Jr. and Cooper based on “an intuitive and ergonomic switching function” existing either in the cited combination of Henry, Jr. and Cooper or in knowledge generally available to one of ordinary skill in the art. The Examiner has only provided a series of statements that merely amount to an assertion that Cooper discloses features that “read on” individual limitations of the subject matter of claim 18. The test for obviousness is not whether one of ordinary skill in the art would recognize that a reference would read on individual elements of a claimed combination. Such an analysis is akin to hindsight, which is impermissible.

Because the Examiner has not properly established motivation to combine the teachings of Henry, Jr. and Cooper either in the references themselves or in knowledge generally available to one of ordinary skill in the art, the Office Action fails to establish a proper case of obviousness. The alleged motivation cited by the Examiner is thus similar to reasoning which was held to be insufficient to support a motivation to combine teachings of cited references by the U.S. Court of Appeals for the Federal Circuit. In re Lee, 277 F.3d 1338, 61 USPQ.2d 1430 (Fed. Cir. 2002). Without a proper motivation to combine the teachings of Henry, Jr. and Cooper with knowledge of one of ordinary skill in the art, it is apparent that hindsight reasoning has been used that relies on Appellant’s own disclosure as a roadmap.

Furthermore, in providing the innovation and advantages of the method of interfacing with a handheld computer system of claim 18, including the function of the pressure sensitive switch coupled to the deformable side, Appellant has proceeded against conventional wisdom. Proceeding contrary to accepted wisdom is evidence of non-obviousness. See In re Hedges, 783 F.2d 1038, 228 U.S.P.Q. 685 (Fed. Cir. 1986). Applicant’s claimed combination of the function of the pressure sensitive switch coupled to the deformable side with the other elements of claim 1 provides the advantage of a user interface and a handheld computer in a single device and represents a significant innovation over providing the switching features taught by either Cooper or Danielson et al. in combination with a conventional separate mouse or other interface

device separate from the computer. Contrary to conventional wisdom, Appellant has taken the handheld computer itself and integrated user interface switches and a deformable side into it as opposed to putting such features on a separate user interface. This design makes the handheld computer housing part of the user interface, and is a very different concept from having the user interface as a separate device.

Therefore, it is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness because there is no suggestion or motivation to combine the teachings of Henry, Jr. and Cooper and that and the rejection of claim 18 should be reversed. Furthermore, claims 19-22 depend from independent claim 18, and therefore the rejection of claims 19-22 should be reversed for at least the same reasons as discussed above with regard to claim 18. See 35 U.S.C. § 112 ¶ 4.

**B. The Examiner's Rejection of Claims 18-22 Should Be Reversed Because the Combination of Henry, Jr. and Cooper Does Not Teach or Suggest At Least One Element of Each of Claims 18-22.**

A prima facie case of obviousness requires that the prior art reference or references teaches or suggests all of the claimed limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). The combination of Henry, Jr. and Cooper does not teach or suggest at least one element of each of claims 18-22. Accordingly, the Examiner has failed to establish a prima facie case of obviousness, and the rejection of claims 18-22 should be reversed.

Independent claim 18 recites in combination with other limitations "wherein the deformable side is opposite a non-deformable side of the handheld computer." The cited combination of Henry, Jr. in view of Cooper does not teach or suggest "wherein the deformable side is opposite a non-deformable side of the handheld computer" as included in the combination of steps of claim 18. Cooper teaches that:

Periphery cover 18 includes vertical wall 29 with outward facing digit-engaging portions 30 and 31 in opposed positions on the vertical wall so that they can receive a squeezing force applied by two digits of an operator who is grasping the mouse controller in

his hand. The wall 29 is resiliently flexible so that when it is squeezed between portions 30, 31 it moves inward and presses against operating mechanisms 26, 27 of switches 21, 22.

See Cooper, col. 2, lines 2-11. Cooper also teaches that “[s]ince switches 21 and 22 are connected in series they may be considered together as a single composite switch which is closed if both are closed and otherwise open.” As such, Cooper discloses the use of two opposite flexible wall portions to activate a single composite switch. Thus, the cited combination of Henry, Jr. in view of Cooper does not teach, disclose, or suggest “wherein the deformable side is opposite a non-deformable side of the handheld computer,” and particularly not as part of a “method of interfacing with a handheld computer system” when combined with the other steps of claim 18.

Therefore, it is respectfully submitted that the Examiner has failed to establish a prima facie case of obviousness because the combination of Henry, Jr. and Cooper does not teach or suggest at least one limitation of claim 18, and that and the rejection of claim 18 should be reversed. Furthermore, claims 19-22 depend from independent claim 18, and therefore the rejection of claims 19-22 should be reversed for at least the same reasons as discussed above with regard to claim 18. See 35 U.S.C. § 112 ¶ 4.

## 8. CONCLUSION

In view of the foregoing, Appellant submits that claims 1-22 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Henry, Jr. and Cooper and are therefore patentable. Accordingly, Appellant respectfully requests that the Board reverse all claim rejections and indicate that a notice of allowance respecting all pending claims should be issued.

Respectfully submitted,

Date 1/23/2006

FOLEY & LARDNER LLP  
Customer Number: 26371  
Telephone: (414) 297-5554  
Facsimile: (414) 297-4900

By Chad E. Bement

Chad E. Bement  
Attorney for Applicant  
Registration No. 54,991



**CLAIMS APPENDIX**

1. A handheld computer system, comprising:
  - a pressure sensitive switch;
  - a user interface;
  - a housing having a deformable side, the housing being sized to be held in one hand, a pressure sensitive switch coupled to the deformable side of the housing such that when the housing is squeezed by the one hand, the deformable side is deformed and the switch is toggled; and
  - a display supported by the housing, wherein the user interface includes a text information entry area, wherein the text information entry area is activated in response to manipulation of the switch.
2. The handheld computer system of claim 1, wherein the text information entry area is deactivated in response to manipulation of the switch.
3. The handheld computer system of claim 2 wherein the switch includes two actions: a first manipulation of the switch to activate the text information entry area and a second manipulation of the switch to deactivate the text information entry area.
4. The handheld computer system of claims 1, 2, or 3 wherein the switch is a squeeze switch associated with the housing.

5. The handheld computer system of claims 1, 2, or 3 wherein the switch is a squeeze switch.

6. The handheld computer system of claims 1, 2, or 3 wherein the text information entry area includes a pop-up menu.

7. The handheld computer system of claims 1, 2, or 3 wherein the text information entry area has at least two sizes when activated.

8. A user interface for a handheld computer system, the handheld computer system comprising a display and a touch pad, the user interface comprising:

means for receiving information at the touch pad and the display, the means for receiving a display in a graphical user interface to prompt a user to input text information; and

means for activating and deactivating the means for receiving, wherein the means for receiving is reduced in size or removed from the display when deactivated and the means for activating and deactivating is not located on the display and is located adjacent a deformable side of a housing of the handheld computer, the housing being sized to be held in one hand, the means for activating and deactivating is coupled to the deformable side of the housing such that when the deformable side of the housing is squeezed by the one hand, the means for activating and deactivating is toggled.

9. The user interface means of claim 8 wherein the means for receiving is at least one of a handwriting recognition input area, a pictorial representation of a keyboard, and an area assigned for entering text information into the handheld computer system.

10. The user interface means of claim 9 wherein the handwriting recognition input area receives handwritten characters, the handwritten characters include numbers or letters.

11. The user interface means of claim 8 wherein means for receiving comprises a handwriting recognition input area to receive handwritten characters, the handwritten characters include numbers or letters.

12. The user interface of claim 8 wherein the means for receiving is removed from the display when deactivated.

13. The user interface of claims 9, 10, 11, or 12 wherein the means for activating and deactivating includes a squeeze switch.

14. The user interface of claims 9, 10, 11, or 12 wherein the means for activating and deactivating is integrated into a portion of a housing of the handheld computer.

15. The user interface of claim 13 wherein the means for activating and deactivating is integrated into a portion of a housing of the handheld computer.

16. The user interface of claim 14 wherein the means for activating and deactivating includes a symbol.

17. The user interface of claim 14 wherein the means for activating and deactivating includes a symbol is a fixed symbol.

18. A method of interfacing with a handheld computer system, the handheld computer system comprising a display and a touch pad, the method comprising:

activating a user interface device to cause a suitable area for receiving handwritten characters to be displayed on the display above or behind the touch pad while the user interface device is being activated by the user, activation of the user interface device being caused by applying and maintaining hand pressure on a deformable side of a housing of the handheld computer, wherein the deformable side is opposite a non-deformable side of the handheld computer;

providing information entry on the touch pad; and

removing the suitable area from the display when the user interface device is deactivated wherein the user interface device is not located on the display and deactivation of the user interface device is caused by releasing pressure from the deformable side which is coupled to a switch.

19. The method of claim 18 wherein the user interface device comprises a touch sensor.

20. The method of claim 18 wherein the user interface device is a mechanical switch.



21. The method of claim 20 wherein the mechanical switch is a squeeze switch integrated in a housing of the handheld computer system.

22. The method of claims 19, 20, or 21 wherein the suitable area is at least one of a pop-up handwriting recognition area, a pictorial representation of a keyboard, and an area assigned for entering information into the handheld computer system.

**EVIDENCE APPENDIX**

None

**RELATED PROCEEDINGS APPENDIX**

None